

Provisional Conference Program

Mount Hood Asia/ Society for Medical Decision making 2023

**3-5 December 2023
Kuala Lumpur, Malaysia**



NB: Timings of sessions subject to change.

*Economics, Simulation Modelling and Diabetes:
Mount Hood Challenge, Asia 2023*

Conference Centre Map and General Information

Location: [Connexion Conference & Event Center in](#) Kuala Lumpur, Malaysia.

Pre-conference workshop I -3rd of December

10am-1pm

Introduction to Building and Calibrating Simulation

Models in R

The workshop covers the main aspect of constructing and calibrating decision models using R. The workshop assumes some familiarity with concepts of decision-analytic simulation models but is aimed at researchers interested in learning to implement simulation models using R software and fitting them via calibration to data.

Reasons for modeling in R: Availability of excellent, high performance free tools like R and RStudio. Excellent packages for statistical and data manipulation tasks, frameworks like DARTH for decision modeling, and other packages for optimization and calibration. Easy to distribute and reproduce models transparently which is increasingly becoming the standard for submissions to health technology assessment organizations as well as for publication and dissemination.

Outline:

- Brief review of the reasons for modeling in R
- Brief review of basic R functions that are commonly used in decision modelling (import/export data, data handling, basic distributions, “if” and “for” loops etc.) will be provided.
- A simple decision tree will be constructed using R. A base-case analysis, as well as one-way deterministic and probabilistic analyses will be conducted.
- A Markov model will be designed using R. A Base case, as well as multi-way sensitivity analysis will be conducted.
- Results of both models will be presented in tabular and graphical form.
- Several examples of calibrating the Markov model to data to inform unknown/uncertain inputs will be shown.
- Advanced functions of R in decision modelling will be discussed. Examples include building microsimulation models or integrating network meta-analyses and decision models using R.
- Principles of good modelling practices using R (e.g. consistency, proper documentation etc) will be outlined.
- All R programming templates for decision modelling will be provided to participants after the course for future use along with a list of citations of the papers used in the examples and course.

Pre-conference workshop II -3rd of December

2pm-5pm

Diabetes and simulation modelling

Introduction to diabetes modelling

- Brief History
- How simulation models work
- Constructing risk equations using individual data
- Developing risk-factor equations

Quality of life and complications

- Collection of Quality of life data: Case studies from UKPDS and ADVANCE studies
- How often and what do we need to collect?
- Heterogeneity in responses across regions
- Relationship between utility and mortality
- Quality Adjusted Survival Models

Costs of treatments and complications

- Changes in the price and expenditure of diabetes therapies: recent evidence
- Options for collecting resource use information
- Sources of costing data in other countries – Sweden, Australia, ADVANCE.

Future directions in modelling

- Adapting models across settings
- Calibration risk equations
- Developing new equations – mortality following events - WA UKPDS example
- What can we learn from meta-models?

New Developments in Type 1 diabetes

- Burden of the disease: Life expectancy gap in Sweden & Australia
- How a hypo can impact on your life expectancy
- Overview of a new Type 1 diabetes model

The future of diabetes simulation modelling

- Capturing new treatments and interventions
- Can we develop a universal model?
- Software for simulation modelling

***Economics, Simulation Modelling and Diabetes:
Mount Hood Asia Challenge 2023***

Conference overview

The Mount Hood Challenge conference focuses on economic aspects of diabetes and its complications. The challenges are developed collectively by an international group of researchers engaged in development of diabetes simulation models for health economic evaluation.

A major focal point of the conference will be a comparison of health economic diabetes models both in terms of their structure and performance. This conference builds on eight previous diabetes simulation modelling conferences that have been held since 1999.

This year's conference will focus on the economic aspects of diabetes and its complications and there will be two challenges that involve structured comparisons of predefined simulations undertaken by groups that have developed health economic models involving diabetes.

Conference Program

Monday 4th of December 2023

Venue [Connexion Conference & Event Center in](#) Kuala Lumpur, Malaysia.

8:00-9:00am **REGISTRATION**

Plenary – Diabetes in Asia

9:00-:10am *Assoc Prof. Dr. Lee-Ling Lim*

*Senior Consultant Endocrinologist and Head of the Diabetes Care Unit,
University of Malaya Medical Centre*

10:00-11:00am **Morning Abstract Session 1**

11:00-11:30am **Morning Break**

11:30-1:00pm **Challenge 1 : Updating the reference case: Modelling common treatments for people on a standard patient**

All modelling groups present a brief overview of their model

1:00-2:00pm **Lunch**

2:00-3:30pm **Challenge 2 : Costs & Cost-effectiveness of common treatments for diabetes**

3:30-4:00pm **Afternoon Break**

4:00-5:00pm **Afternoon abstract session 2**

5:00-6:00pm

Mount Hood Network Business Meeting

6:30 Onward

CONFERENCE DINNER

Instructions for presenters in abstract sessions

- The time allocated for presentation will be 10 minutes each. Allow a minimum of one minute per slide, preferably 2–3 minutes.
- A laptop computer and projector will be provided for your presentation, using Microsoft PowerPoint software. Both slides formats, 4:3 or 16:9, can be accommodated.
- Arrive at the meeting room before the session begins and contact the session convener for last-minute instructions or changes in the schedule.
- Please bring along your slides on a USB stick and load them onto the computer during the break before your session.
- During your presentation, state the purpose and objectives of the paper, the main concepts and results, and the conclusions. Avoid too much detail.
- Do not exceed the allocated time for your presentation.
- Presenters will be given an opportunity to make a pdf of a paper or slides available on the conference website.

